

Electrifying Ag

Farms have historically run on fossil fuels, from diesel tractors and irrigation pumps to propane space and water heating for barns. But farmers are beginning to see the cost, convenience and environmental benefits of going electric. Around 80 percent of U.S. farms are in counties served by electric cooperatives, and co-ops across the country are working to help them switch to efficient electric devices. Here are some of the key systems co-ops are promoting.

Space Heating

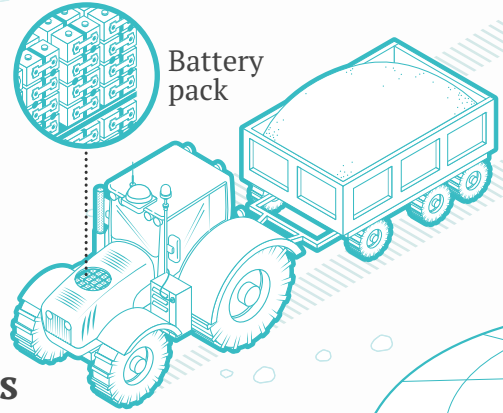
Electric technologies including heating, storage, waste heat recovery and heat pumps can help cut farms' space-conditioning costs.

Water Heating

Large-capacity water heaters, used mainly in dairy operations, are significantly more efficient when run on electricity.

Tractors

Electric tractors are an emerging technology but show promise for higher efficiency and less maintenance. They could also pave the way for autonomous equipment and "precision ag."



Radio wave
dryer

Radio
frequency
generator

Electric
pivot motor

Grain Drying

Drying grain is extremely energy-intensive. Emerging electric systems, including new ones that use radio waves, show promise for being more efficient and effective.

Electric
air blower

Irrigation

Replacing inefficient diesel irrigation motors with high efficiency electric ones can result in substantial energy cost savings for farms.

Electric
water pump